

PHENIX Technical Support 2006

PHENIX WEEKLY PLANNING

5/4/06

Don Lynch



PHENIX Technical Support 2006

This Week

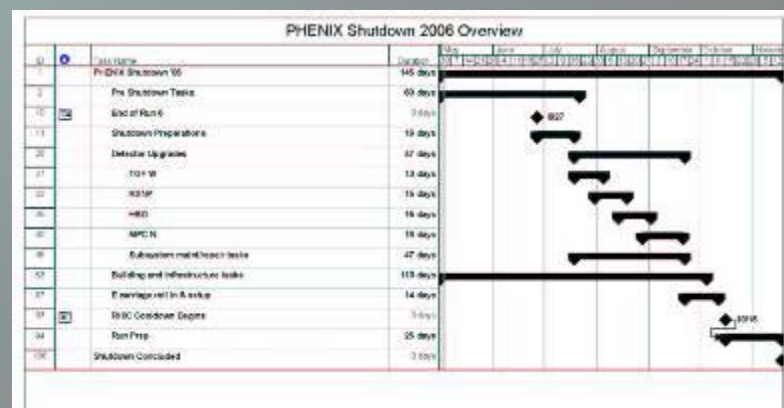
- Continuing HBD prep/electronics bench tests
- Support task backlog
- Run support detector maintenance and adjustments
- RXNP/HBD design tradeoff studies
- Shutdown '06 schedule details



PHENIX Technical Support 2006

PHENIX Shutdown 2006

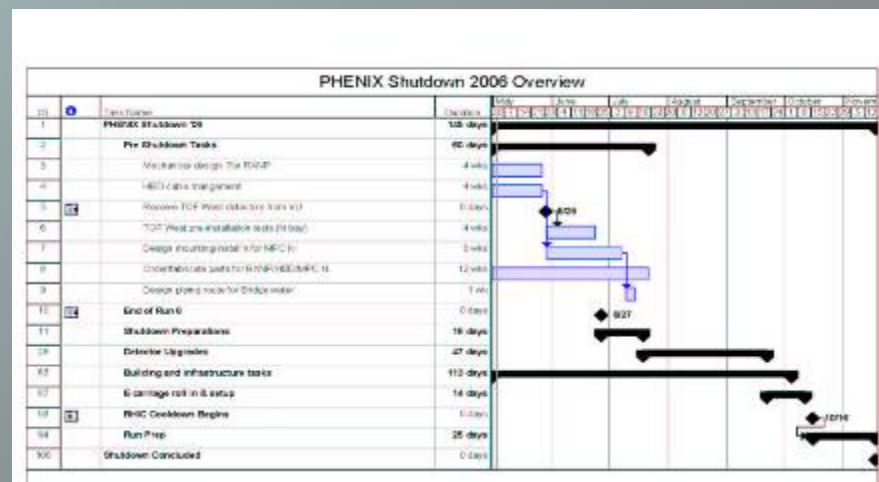
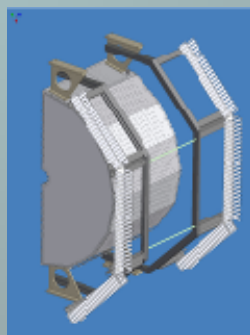
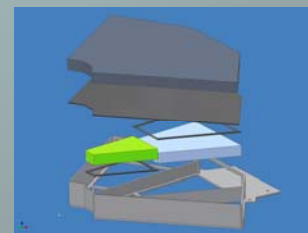
Task_Name	Duration	Start_Date	Finish_Date
PHENIX Shutdown '06	145 days	5/1/2006	11/17/2006
Pre Shutdown Tasks	60 days	5/1/2006	7/21/2006
End of Run 6	0 days	6/27/2006	6/27/2006
Shutdown Preparations	16 days	6/27/2006	7/18/2006
Detector Upgrades	47 days	7/19/2006	9/21/2006
Subsystem maint/repair tasks	47 days	7/19/2006	9/21/2006
Building and infrastructure tasks	113 days	5/1/2006	10/4/2006
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006



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PHENIX Shutdown 2006

Pre Shutdown Tasks	60 days	5/1/2006	7/21/2006
Mechanical design For RXNP	4 wks	5/1/2006	5/26/2006
HBD cable mangement	4 wks	5/1/2006	5/26/2006
Receive TOF West detectors from VU	0 days	5/29/2006	5/29/2006
TOF West pre-installation tests (hi bay)	4 wks	5/29/2006	6/23/2006
Design mounting/install'n for MPC N	6 wks	5/29/2006	7/7/2006
Order/fabricate parts for RXNP/HBD/MPC N	12 wks	5/1/2006	7/21/2006
Design piping route for Bridge water	1 wk	7/10/2006	7/14/2006
End of Run 6	0 days	6/27/2006	6/27/2006



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Shutdown Preparations

Purge gas from all detectors

End of Run party

DAQ tests

Open up & prep

Open rolling woor

Remove rolling wall and plug doors

Take down EC access ladder & fold platforms

Prepare EC for move to AH

Remove beampipe collar

Move MMS full south and restrain

Retract and remove EC to AH

Install 12 ton cart on tracks

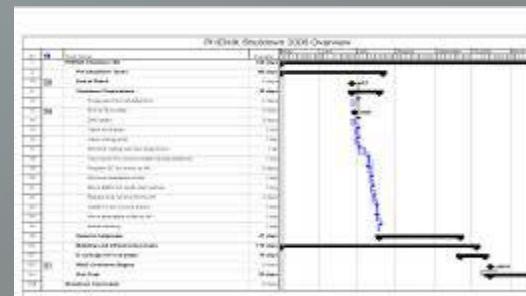
Move beampipe collar to AH

Install decking



PHENIX Shutdown 2006

16 days	6/27/2006	7/18/2006
2 days	6/27/2006	6/28/2006
0 days	6/29/2006	6/29/2006
3 days	6/27/2006	6/29/2006
1 day	6/30/2006	6/30/2006
1 day	6/30/2006	6/30/2006
1 wk	7/3/2006	7/7/2006
1 day	7/10/2006	7/10/2006
3 days	7/10/2006	7/12/2006
1 day	7/11/2006	7/11/2006
1 day	7/12/2006	7/12/2006
2 days	7/13/2006	7/14/2006
1 day	7/17/2006	7/17/2006
1 day	7/17/2006	7/17/2006
1 day	7/18/2006	7/18/2006



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PHENIX Shutdown 2006

TOF W

Prepare installation Fixtures

Mockup test installation

TOF Mechanical installation

TOF Electrical Installation

RXNP

Prepare for installation

Mechanical installation

Electrical installation

HBD

Prepare for installation

Mechanical installation

Electrical installation

MPC N

Move CM south

Prepare for installation

Mechanical installation

Electrical installation

Move CM North

13 days 7/19/2006 8/4/2006

2 days 7/19/2006 7/20/2006

1 day 7/21/2006 7/21/2006

5 days 7/24/2006 7/28/2006

5 days 7/31/2006 8/4/2006

15 days 7/31/2006 8/18/2006

5 days 7/31/2006 8/4/2006

5 days 8/7/2006 8/11/2006

5 days 8/14/2006 8/18/2006

15 days 8/14/2006 9/1/2006

5 days 8/14/2006 8/18/2006

5 days 8/21/2006 8/25/2006

5 days 8/28/2006 9/1/2006

18 days 8/28/2006 9/20/2006

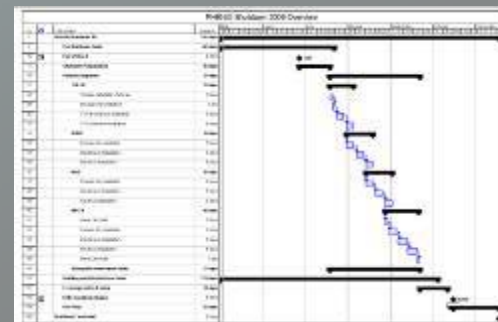
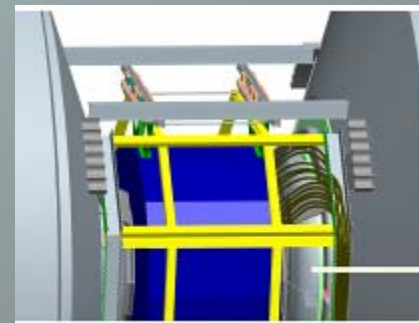
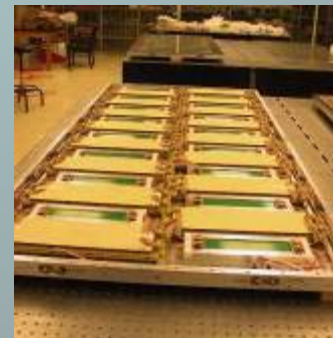
2 days 8/28/2006 8/29/2006

5 days 8/30/2006 9/5/2006

5 days 9/6/2006 9/12/2006

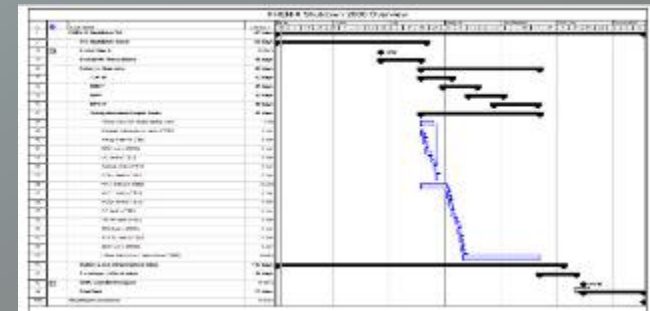
5 days 9/13/2006 9/19/2006

1 day 9/20/2006 9/20/2006



PHENIX

Shutdown 2006



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PHENIX Shutdown 2006

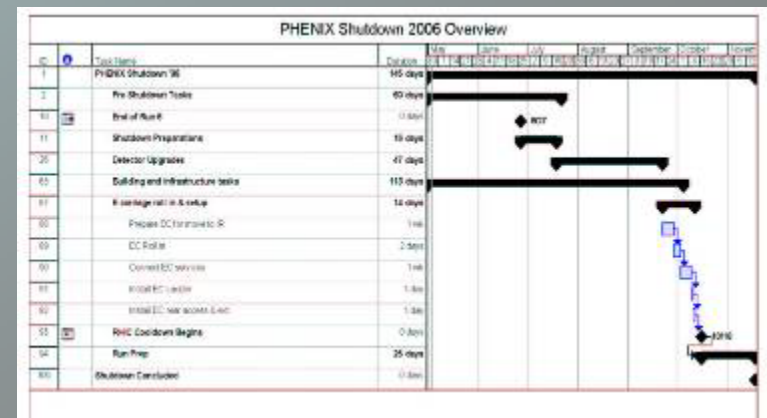


Building and infrastructure tasks	113 days	5/1/2006	10/4/2006
AH infrastructure tasks	1 day	5/1/2006	5/1/2006
TBD	1 day	5/1/2006	5/1/2006
IR infrastructure tasks	18 days	7/17/2006	8/9/2006
Repair water lines to Bridge	1 day	7/17/2006	7/17/2006
Replace emergency fan louvres	1 wk	7/19/2006	7/25/2006
Rewire/add IR Ceiling lights on emergency power	1 wk	7/26/2006	8/1/2006
Move WC away from Wall	1 day	8/2/2006	8/2/2006
Replace WC sliding platform hoisting cables	1 wk	8/3/2006	8/9/2006
Gas Pad	1 day	5/1/2006	5/1/2006
TBD	1 day	5/1/2006	5/1/2006
Gas Mixing House	1 day	5/1/2006	5/1/2006
Exhaust fan maintenance	1 day	5/1/2006	5/1/2006
TBD	1 day	5/1/2006	5/1/2006
Rack Room	1 day	5/1/2006	5/1/2006
TBD	1 day	5/1/2006	5/1/2006
Counting House	1 day	5/1/2006	5/1/2006
TBD	1 day	5/1/2006	5/1/2006
all other PHENIX infrastructure	113 days	5/1/2006	10/4/2006
Tech area & trailer mold remediation	1 day	5/1/2006	5/1/2006
New raw materials storage container	1 day	5/1/2006	5/1/2006
Repair roof leaks	1 day	5/1/2006	5/1/2006
Install bridge access platforms from EC & eyebrow	2 days	10/3/2006	10/4/2006
TBD	1 day	5/1/2006	5/1/2006

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PHENIX Shutdown 2006

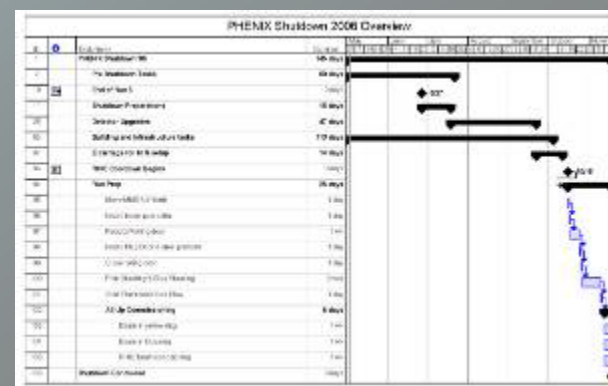
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
Prepare EC for move to IR	1 wk	9/22/2006	9/28/2006
EC Roll in	2 days	9/29/2006	10/2/2006
Connect EC services	1 wk	10/3/2006	10/9/2006
Install EC Ladder	1 day	10/10/2006	10/10/2006
Install EC rear access & ext.	1 day	10/11/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006



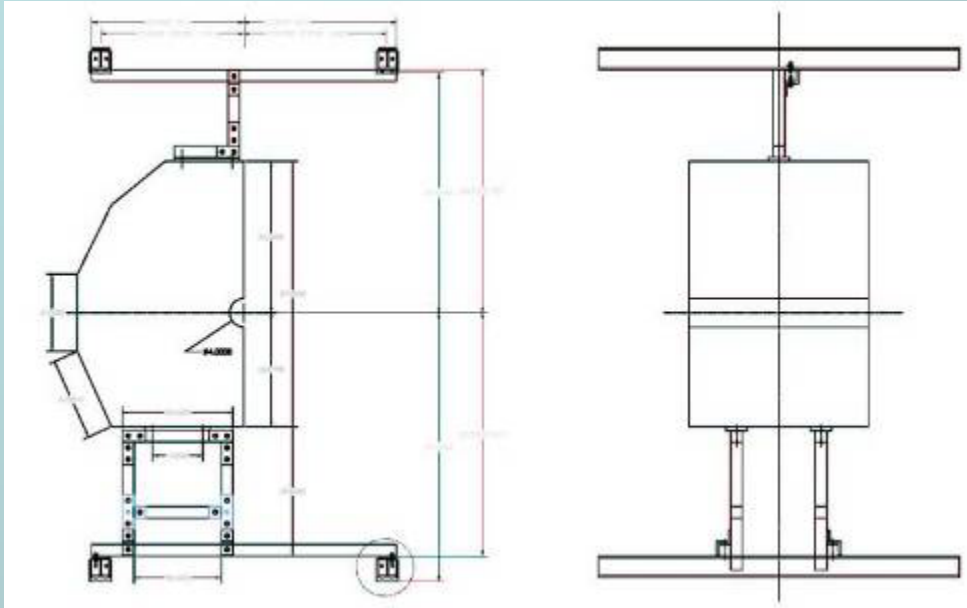
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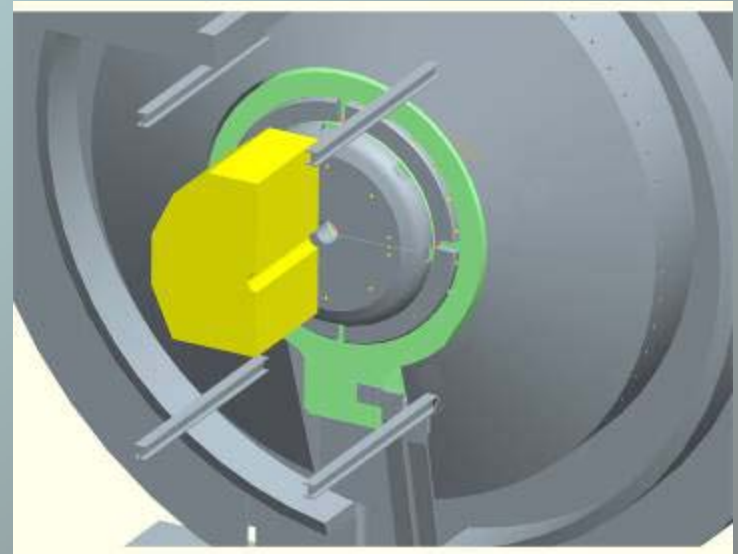
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Move MMS full North	1 day	10/16/2006	10/16/2006
Install beam pipe collar	1 day	10/17/2006	10/17/2006
Rebuild Rolling door	1 wk	10/18/2006	10/24/2006
Install Plug Door & steel platform	1 day	10/25/2006	10/25/2006
Close rolling door	1 day	10/26/2006	10/26/2006
Pink Sheeting & Blue Sheeting	2 wks	10/27/2006	11/9/2006
Start Flammable Gas Flow	1 day	11/10/2006	11/10/2006
All Up Commissioning	5 days	11/13/2006	11/17/2006
Beam in yellow ring	1 wk	11/13/2006	11/17/2006
Beam in blue ring	1 wk	11/13/2006	11/17/2006
RHIC beam conditioning	1 wk	11/13/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006



HBD Prototype Run Position Mounting



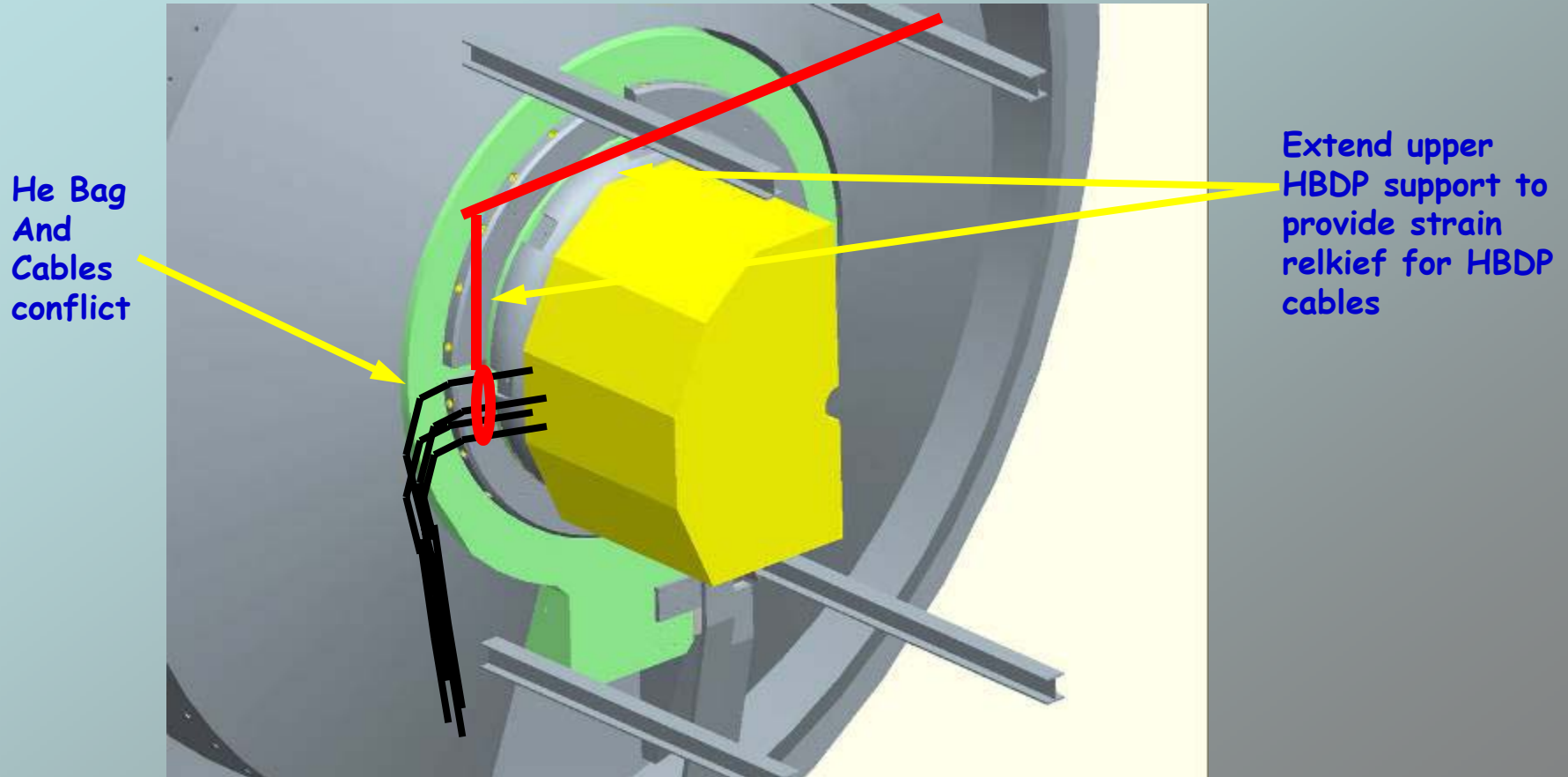
Prototype mounting supports



In run position
(mounting supports not shown)

When to take out He bag?

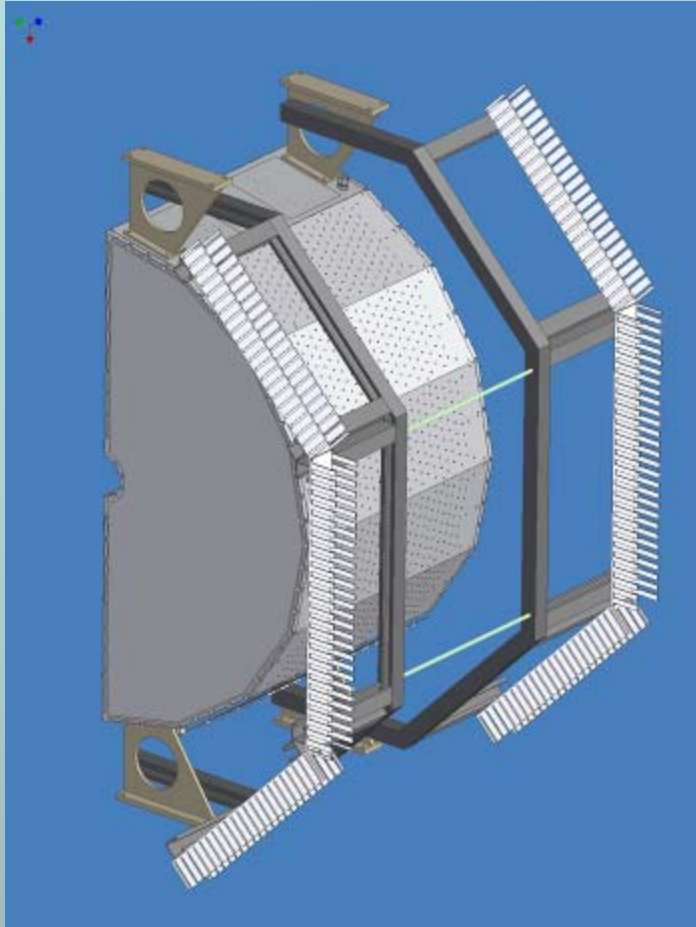
HBD Prototype Run Position Mounting



- Continue prep for HBD prototype move to run position
- HBD prototype check out tests
- New detector work (TOF West handling fixtures, HBD support structure, RXNP design, MPC North design)

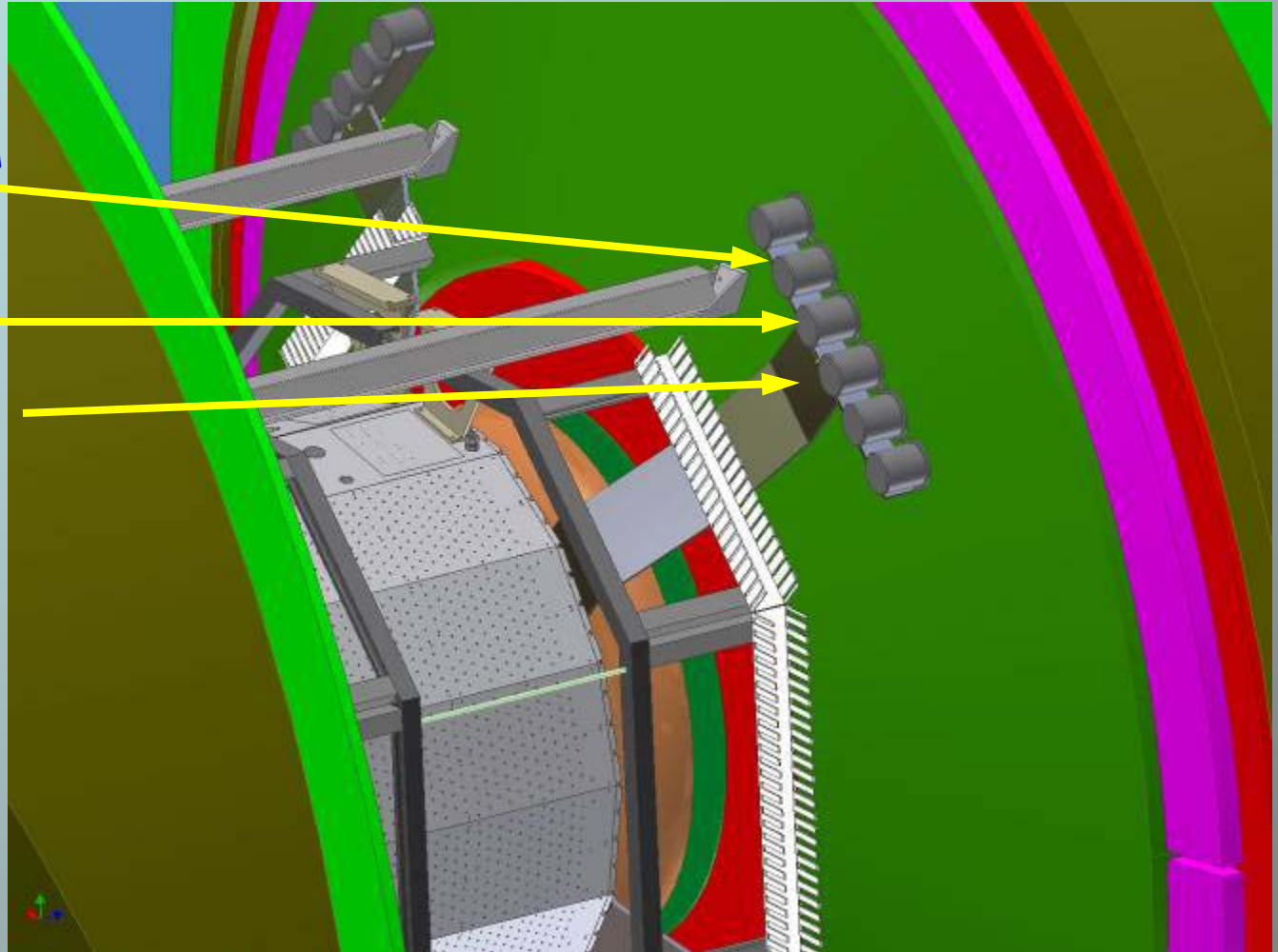


HBD Cable Management Scheme (Take 3)



Moved some support out of acceptance.

Work-in-progress

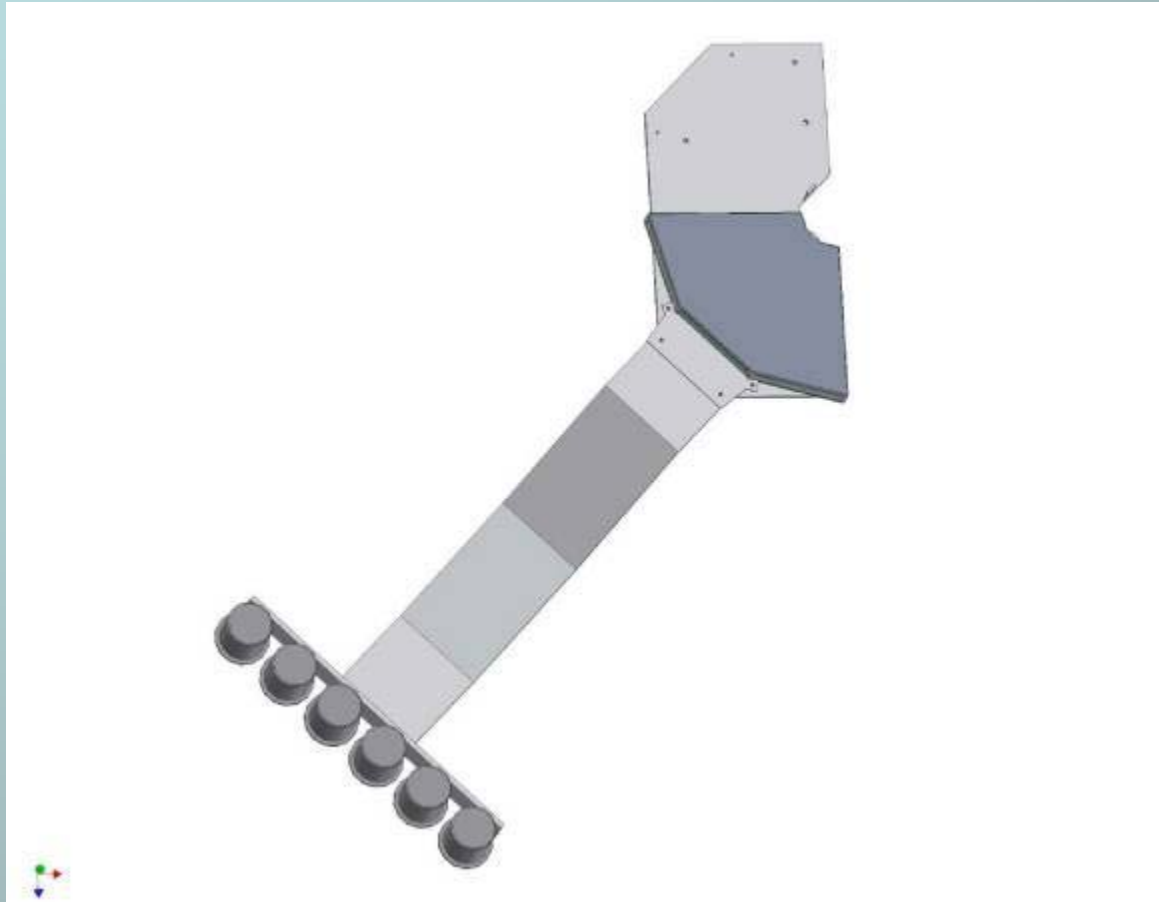


Moved PMT's to 1300 mm max to avoid I-beams

3" PMT's

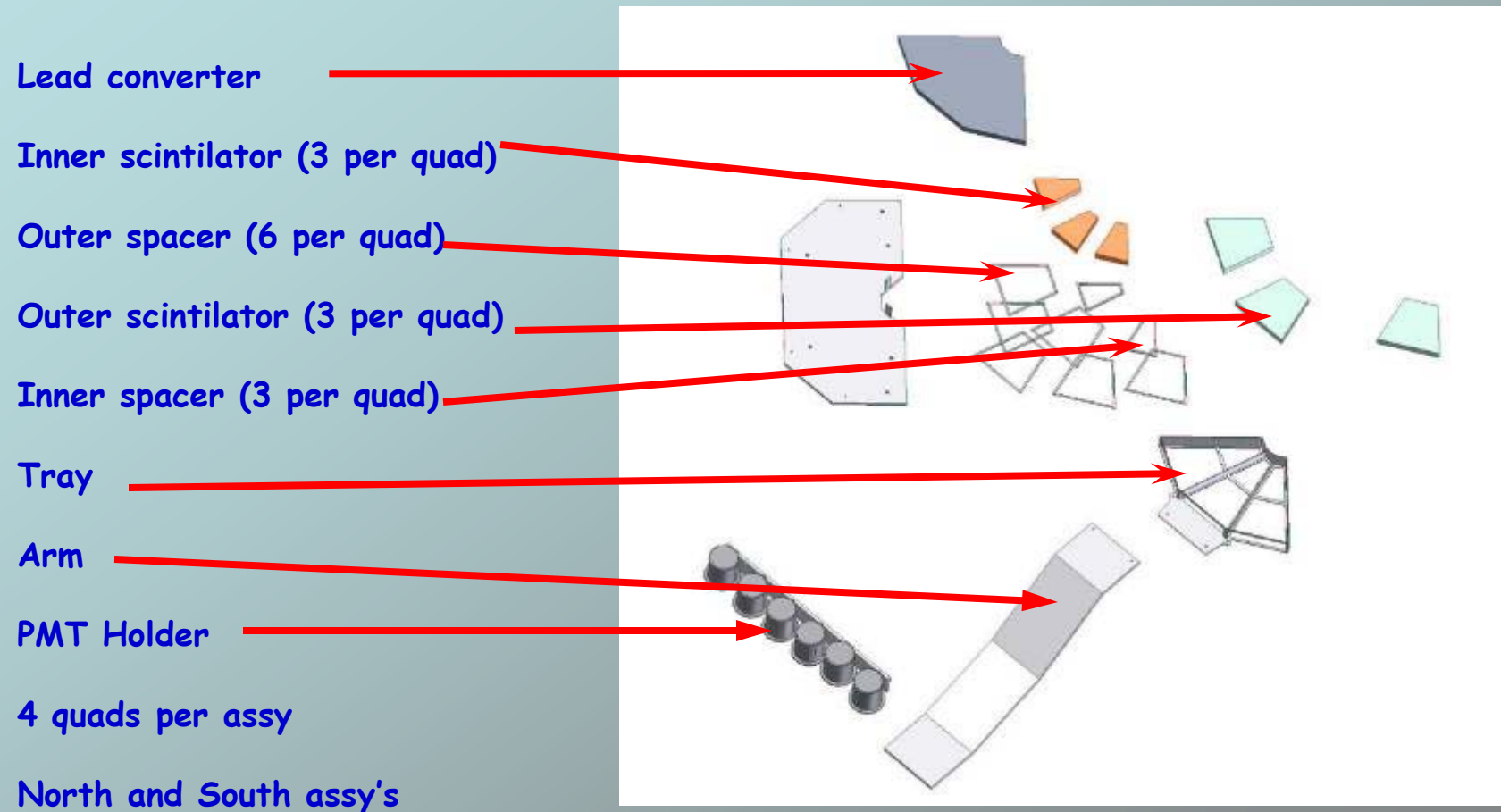
Attach arms to pole face for extra support

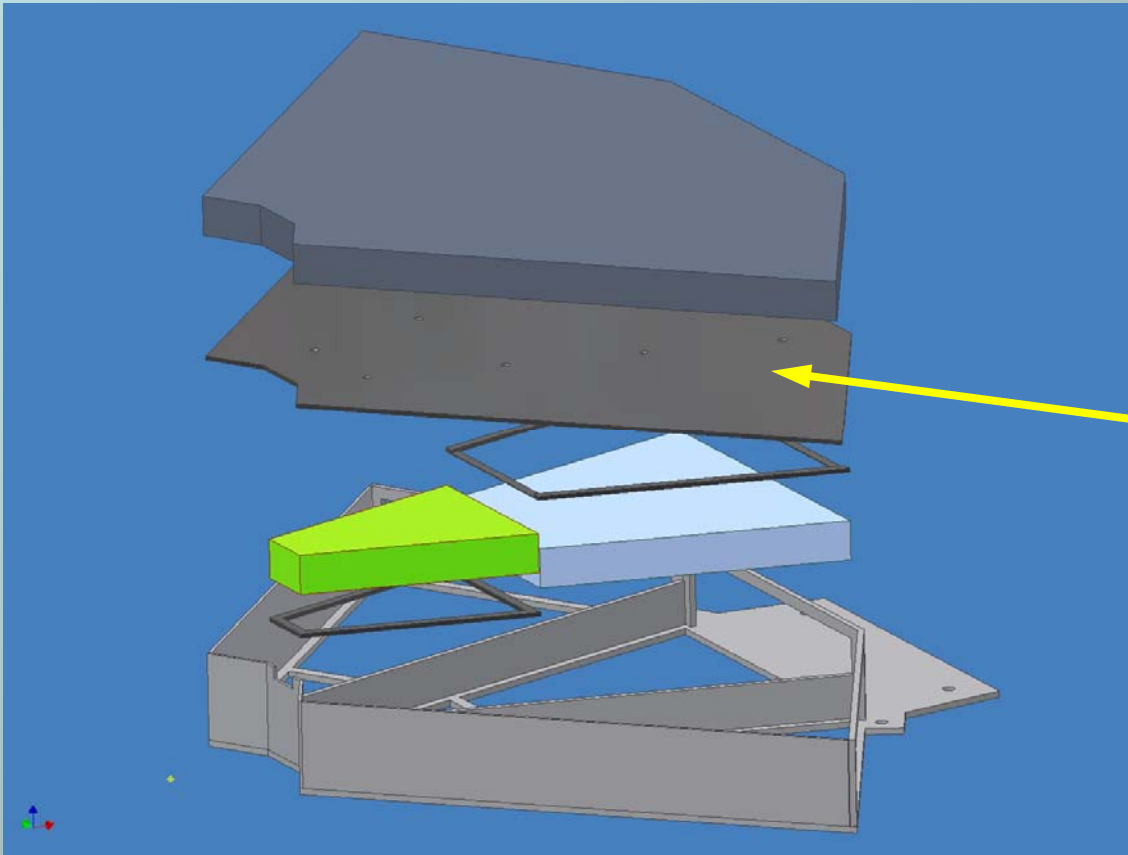
Still working on fiber routing/mounting/protection



Design is progressing in coordination with HBD mounting and cable management

Reaction Plane Detector (RXNP)



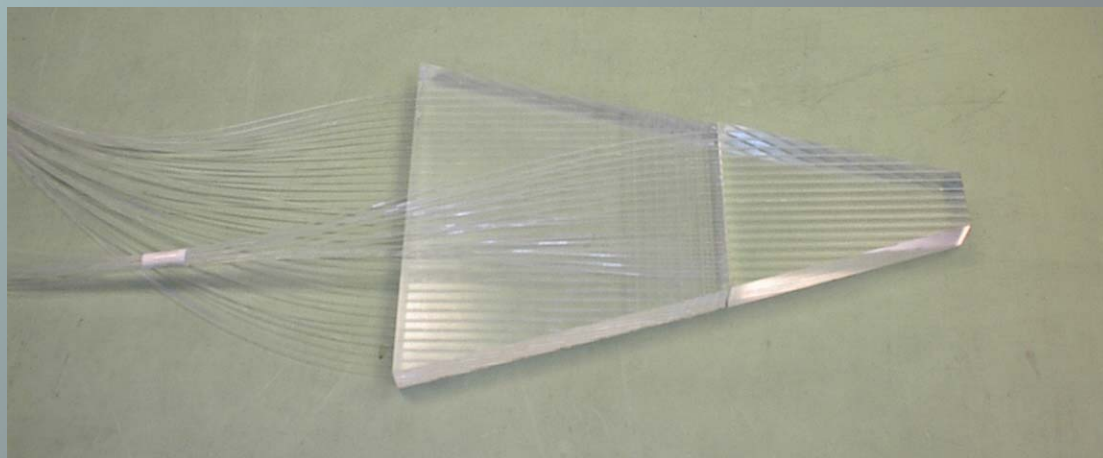
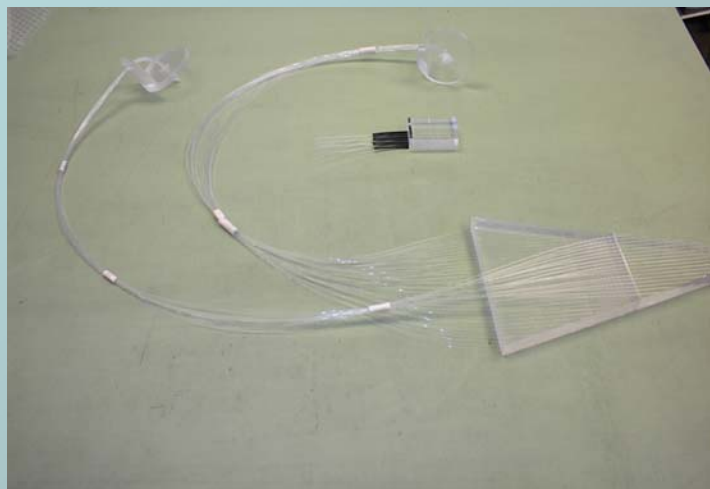
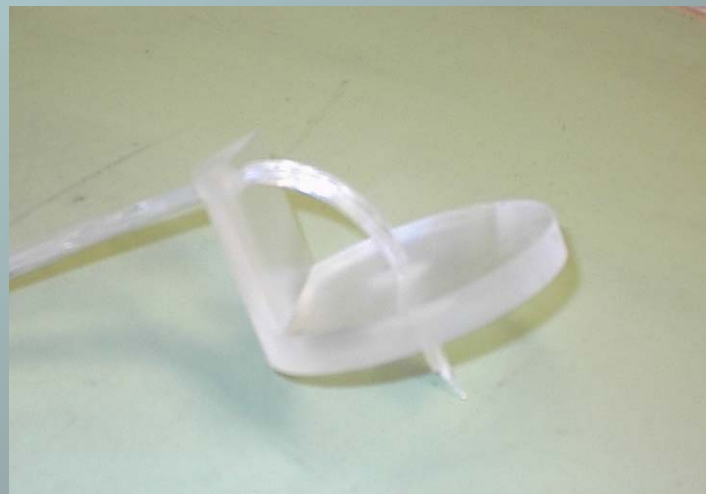


Revised design for
RXNP

Spacer holds
detector together
without lead

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RXNP Scintillator & Fiber Prototypes



Next Access Day

- Expect next access day (8 hrs) to be May 10
- May be shorter controlled accesses before then
- Subsystems must arrange for tech assistance prior to access day or don't expect assistance. (see Don Lynch or John Haggerty)
- PHENIX Techs only on CM lift platform unless accompanied by PHENIX Tech (Lift platform is locked and requires removal of C. Pearson tag out)
- Planned:
 - subsystem trouble shooting
 - HBD system tests
 - Misc. trouble shooting

Other Projects

TOF West

- Expect detectors to be at BNL by June 1.

MPC North

- Design efforts ongoing at UI.

Muon RPC

- Nothing New

Beampipe design

- New spec control drawing needed.

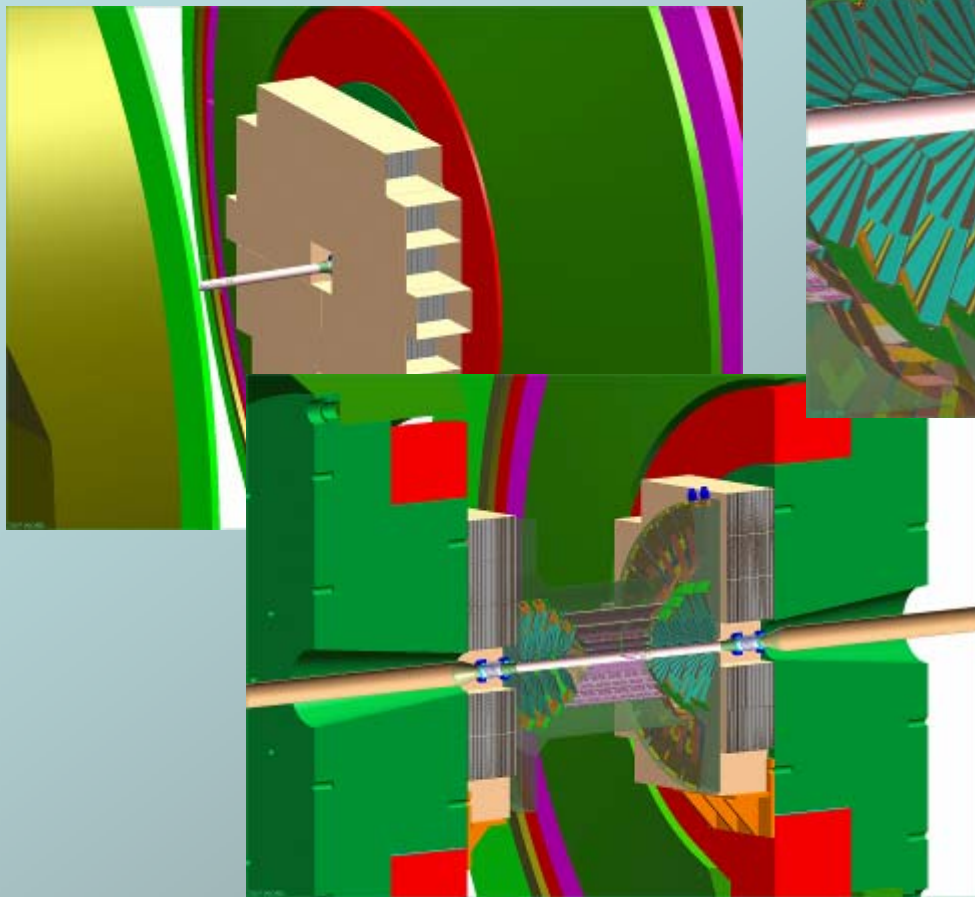
New CM Crane

- Talked to Charlie. PHENIX will coordinate spec. requirements

Engineering Documentation

- Nothing new

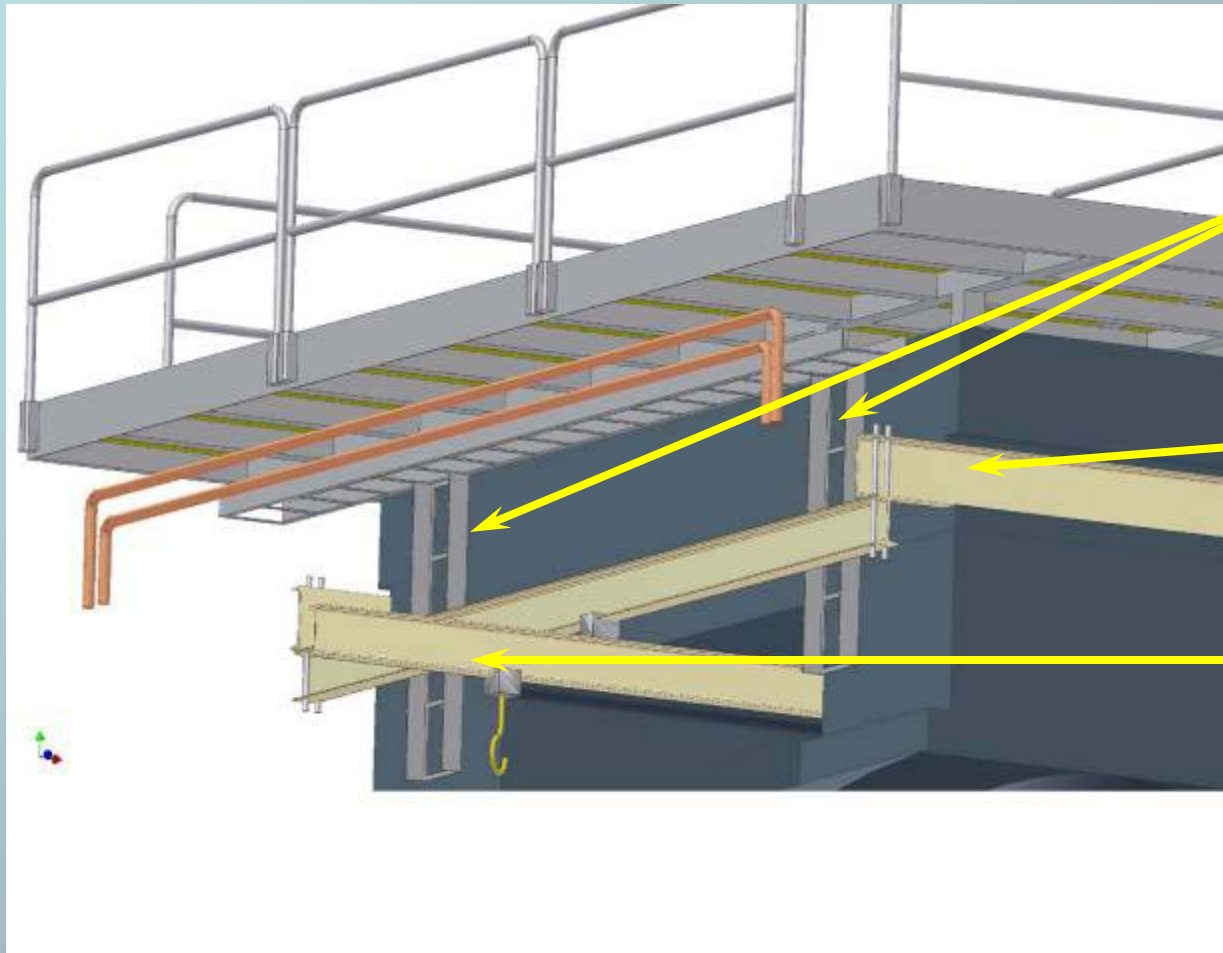
New Beampipe for Upgrades



CA Coordination meeting findings:

1. Min radial clearance for VTX = 25 mm
2. Min Be ID = 40 mm
3. Be wall = 0.5 mm (4.4 mm min clearance)
4. Be ID to be neg coated at BNL
5. Be OD to be epoxy coated by Vendor
6. Requires supports at both bellows
7. Stress analyses needed (axial stress, vacuum breach shock stress and thermo-mechanical stresses during bakeout)
8. RF analysis of bellows needed (shields?)

CM Region Crane & Cable Routing Concept



Cable Trays to route cables NCC Detector from Bridge

Crane Supports use existing flux return notches

CM Crane north-south & east-west motions; extended travel east to existing crane coverage

C-A Tasks

Current Tasks

- General run support
- New storage trailer (as promised)
- Fix roof leaks

Tasks for Shutdown 2006

- See Shutdown schedule



MOLD Problems



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Shutdown 2006 key dates

- Run ends June 27
- End of Run Party June 29?
- Open Shield wall June 30
- Prep and move EC July 10
- Install TOF W (start) July 19
- Install RXNP (start) July 31
- Install HBD (start no later than) Aug 14 (possibly as early as Aug 1)
- Install MPC North (start no later than) Aug 28
- Start EC roll in Sep. 22
- Start RHIC Cooldown Oct. 15
- Start Physics data taking Nov. 17

Subsystems: Get requests for maintenance in early to get on the schedule

PHENIX Technical Support 2006

Where To Find PHENIX Technical Info

Links for the shutdown schedule as well as weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found from the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

